



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office

Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

A-S

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
-----------------	-------------	----------------------	---------------------

08/976,658 11/24/97 CORR

S 243345/CPR.3

EXAMINER

IM62/0313

CUSHMAN DARBY & CUSHMAN
INTELLECTUAL PROPERTY GROUP OF
PILLSBURY MADISON & SUTRO
1100 NEW YORK AVE NW 9TH FL EAST TOWER
WASHINGTON DC 20005-3918

OGDEN JR, N

ART UNIT

PAPER NUMBER

1751

32

DATE MAILED:

03/13/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
08/976,658

Applicant(s)

Corr

Examiner
Necholus Ogden

Group Art Unit
1751



☒ Responsive to communication(s) filed on Nov 24, 1997

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire three month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 5, 8, 14-18, 20-24, and 27-29 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 5, 8, 14-18, 20-24, and 27-29 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☒ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
☐ received.

☒ received in Application No. (Series Code/Serial Number) 07/957,080

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☐ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

Art Unit: 1751

DETAILED ACTION

Priority

Applicant's status of a continuation of S.N. 07/957,080 has been accepted. Accordingly, this is the first action on the merits.

Specification

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 112

2. Claims 5, 8, 14, 15, 18, 22, 23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 5, 8, 14, 15, 18 all depend from claim 1 which has been canceled according to the preliminary amendment filed 11-27-97. Appropriate clarification and/or corrections are required.

Claim 22 does not further limit from claim 29 of which it depends from.

Regarding claims 22 and 23, the phrase "derivatives thereof" renders the claim(s) indefinite because the claim(s) include(s) elements not actually disclosed (those encompassed by "derivatives"), thereby rendering the scope of the claim(s) unascertainable. See MPEP § 2173.05(d).

Art Unit: 1751

3.

Claim 28 provides for the use of a working fluid, but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

Claim 28 is rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd. v. Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Evaluations of the level of ordinary skill in the art requires consideration of such factors as various prior art approaches, types of problems encountered in the art, rapidity with which innovations are made, sophistication of technology involved, educational background of those actively working in the field, commercial success, and failure of others.

Art Unit: 1751

The "person having ordinary skill" in this art has the capability of understanding the scientific and engineering principles applicable to the claimed invention. The evidence of record including the references and/or the admissions are considered to reasonably reflect this level of skill.

Claims 5, 8, 14-18, 20-24, 27 -28 and 29 are rejected under 35 U.S.C. § 103 as being unpatentable over WO 90/12849 (Jolley) in view of Yoshida et al (5,370,810) or Shiflett (5,285,094).

Jolley discloses a liquid composition comprising a major amount of at least one fluorine containing hydrocarbon and a minor amount of at least one soluble organic lubricant which comprises an ester of a polyhydroxy compound and characterized by the general formula $R[CO(O)R^1]_n$ (pg. 5, line 19 -, pg. 6, line 7) in which R is a hydrocarbyl group, a straight chain lower hydrocarbyl group such as pentaerythritol, dipentaerythritol or trimethylol propane and R^1 is a carboxylic acid or a carboxylic acid ester-containing hydrocarbyl group and n is an integer, (Pg. 10 line 11 - Pg. 16 line 27) said formula reads on applicant's formula II in claim 1 part (b). With respect to the heat transfer fluid, Jolley teaches that said composition may comprise at least one fluorine containing hydrocarbon such as fluoromethanes and fluorethanes including applicant's preferred 1,1,1,2-tetrafluoroethane or mixtures of fluorine-containing hydrocarbons may also be used (pg. 9, lines 21- 28).

Specifically Jolley lacks the inclusion of applicants specific binary or ternary mixture of refrigerants.

Yoshida et al teaches a working fluid composition comprising tetrafluoroethane and at least two fluorinated hydrocarbons wherein said mixture consists of difluoromethane (R-

Art Unit: 1751

32), 1,1,1,2-tetrafluoroethane (R-134a), and pentafluoroethane (R-125) (abstract, example 7, Table 7, example 8, Table 8 and claim 1).

Shiflett discloses a ternary mixture of pentafluoroethane, difluoromethane and tetrafluoromethane useful as refrigerants, heat transfer media and working fluids (abstract, col. 1, lines 12-27 and Table 3).

It would have been obvious to one of ordinary skill in the art to include a ternary mixture of said fluorinated hydrocarbons of Yoshida et al or Shiflett because each secondary reference teach that it is well known in the refrigerant art to include a mixture of pentafluoroethane difluoromethane and tetrafluoroethane as working fluid refrigerants and by exhibiting an azeotropic or near azeotropic mixture the ternary mixture have zero ozone depletion potential as compared to previously used refrigerants ("Shiflett" col. 3, lines 10-25). Furthermore, Jolley invites the inclusion of a mixture of refrigerants and one of ordinary skill in the art would expect the additional refrigerants to benefit the liquid composition of Jolley in an additive or cumulative manner absent a showing to the contrary.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Necholas Ogden whose telephone number is (703) 308-3732.


Application/Control Number: 08/976,658

Page 6

Art Unit: 1751

no

March 13, 2000


NICHOLUS OGDEN
PRIMARY EXAMINER